

50 CFR Part 17

RIN 1018-AB75

Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Karner Blue Butterfly**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service proposes to determine the Karner blue butterfly (*Lycaeides melissa samuelis*) to be an endangered species pursuant to the Endangered Species Act of 1973 (Act), as amended. Historically, the Karner blue butterfly occurred in a rather narrow band extending from eastern Minnesota, across portions of Wisconsin, Illinois, Indiana, Michigan, Ohio, Canada (Ontario), Pennsylvania, New York, Massachusetts, and New Hampshire. It is now extirpated from Illinois, Ohio, Ontario, Pennsylvania, and Massachusetts. This action is being taken because of constriction of the species' range and the declining size of remaining populations. The primary cause of past and threatened losses is habitat modification and destruction due to development, succession in the absence of natural disturbances, silviculture, and fragmentation of remaining habitat. This proposal, if

made final, would extend the Federal protection and recovery provisions afforded by the Act to *Lycaeides melissa samuelis*. The Service seeks data and comments from the public on this proposal.

DATES: Comments from all interested parties must be received by March 23, 1992. Public hearing requests must be received by March 6, 1992.

ADDRESSES: Comments and materials concerning this proposal should be sent to the New York Field Office, U.S. Fish and Wildlife Service, 100 Grange Place, room 202, Cortland, New York 13045. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Mark W. Clough at the above address, telephone (607) 753-9334.

SUPPLEMENTARY INFORMATION:**Background**

The Karner blue butterfly has been known for more than a century. When W. H. Edwards first described this butterfly in 1861 in Karner, New York, it was considered to be the same species as the Scudder's blue. In the 1940's, Nabokov revised the taxonomy of the group and renamed the Karner blue as a subspecies of the more common Melissa blue. The current scientific name is *Lycaeides melissa samuelis*, Nabokov. Some lepidopterists consider the Karner blue butterfly to be a separate species (D. Schweitzer, *The Nature Conservancy, in litt.*, 1987). However, this change has not been published and the Karner blue butterfly will be considered a subspecies for the purposes of listing.

Karner blues have a wingspan of 22-32 mm (0.87-1.26 in.). The dorsal side of the male is silvery blue or dark blue with narrow black margins. The females are grayish brown, dorsally, with irregular bands of orange inside the narrow black border on the upper wings. Both sexes are slate gray on the ventral side with the orange bands showing more regularity, and black spots circled with white (Shull 1987).

The habitat of the Karner blue butterfly is characterized by the presence of wild lupine (*Lupinus perennis*), a member of the pea family. Wild lupine is the only known larval host food plant for the Karner blue butterfly and is, therefore, closely tied to the butterfly's ecology and distribution. In eastern New York and New Hampshire, the habitat is typically grassy openings within very dry, sandy pitch pine/scrub oak barrens. In the

Midwest, the habitat is dry and sandy, but more prairie-like, including oak savanna and jack pine areas. It is believed that the Karner blue butterfly originally occurred as shifting clusters of populations, or metapopulations, across a vast fire-swept landscape covering thousands of acres. While the fires resulted in localized extinction, post-fire vegetational succession promoted colonization and rapid population buildups (Schweitzer 1989). Periodic disturbance is necessary to maintain openings in the canopy for wild lupine to thrive. A variety of other understory plants associated with the habitat serve as nectar sources for the adult butterflies.

The Karner blue butterfly usually has two broods each year. Eggs that have overwintered from the previous year hatch in April. The larvae feed on the upper surface of wild lupine leaves and mature rapidly. Near the end of May, they pupate and adult butterflies emerge very late in May in most years. The adults are typically in flight for the first 10 to 15 days of June, when the wild lupine is in bloom. Females lay eggs on or near the wild lupine plants. The eggs hatch in about one week and the larvae feed for about three weeks. They then pupate and the second brood adults appear in the second or third week of July. This time, the eggs are laid among plant litter at the base of the lupines, or on lupine pods or stems. By early August, no adults remain, and these eggs do not hatch until the following spring (Schweitzer 1939, Dirig 1979).

The distribution of the Karner blue butterfly is very discontinuous and generally follows the northern limits of wild lupine. Eight population clusters of the Karner blue butterfly were known historically from portions of Wisconsin, Michigan, Minnesota, Indiana, Illinois, Ohio, Massachusetts, New Hampshire, Pennsylvania, New York, and Ontario. Over the past 100 years, Karner blue butterfly numbers have apparently declined rangewide by 99 percent or more. Over 90 percent of the decline occurred in the last 10 to 15 years. It is now extirpated from Illinois, Massachusetts, Pennsylvania, Ohio, and Ontario (Schweitzer 1989; *in litt.*, 1990).

The New York Natural Heritage Program maintains a state list of approximately 50 individual Karner blue butterfly sites, comprising about ten population clusters, all found in the area known as the Albany Pine Bush and at several scattered locations within about 40 miles to the north. Once the site of a massive Karner blue population, the Albany Pine Bush is the locality from which the Karner blue butterfly was first

scientifically described. There are unverified records of Karner blues in Manhattan and Brooklyn from the mid-1800's. Givnish *et al.* (1988) noted a decline of Karner blue butterflies in the Albany Pine Bush of 85 to 98 percent over the past decade, exclusive of one site which has remained stable. Schweitzer (1990) described the decline in the Pine Bush population as dropping from numbers of around 80,000 in 1979, to around 1,000 in 1987, to 100–200 in 1990. North of the Albany Pine Bush, one disturbed site located at an airport has persisted with numbers estimated around 14,000 in 1990. This population, which is now the largest left anywhere, may account for over half of the Karner blue butterflies throughout their range, and is several times larger than all the other New York sites combined (Schweitzer 1990). The majority of extant Karner blue sites in New York are in municipal and private ownership. Other landowners include a State Park, The Nature Conservancy, and Saratoga County.

In New Hampshire, the Concord Pine Barrens along the Merrimack River support the only remaining occurrence of the Karner blue butterfly in New England. The sole population is extremely low in numbers and occurs on a privately owned, two- to three-acre site within a power line right-of-way bordering an industrial park, and on the grounds of a nearby airport. The results of 1990 surveys reported by The Nature Conservancy (1990) showed a decline in the population size from an estimated 2,000 to 3,000 individuals in 1983 to an estimated 250 to 400 individuals in 1990. During that survey, Karner blue butterflies were not found at two other sites in the Concord Pine Barrens where the subspecies had been documented in 1983.

In Wisconsin, 33 of 36 historical occurrence sites were surveyed during 1990. Survey results reported by Blesser (1990) revealed that Karner blue butterflies were found at only 11 of the 33 historical sites visited. Although 23 previously unknown populations were discovered, Blesser noted that numbers of Karner blue butterflies were very small at most sites. Only three sites had 50 or more individuals, with none greater than 100. Most of the remnant populations in Wisconsin are also widely scattered, occurring in isolated patches of habitat along roadsides, power line clearings, and on abandoned agricultural fields. Over half of the Wisconsin sites are on publicly administered lands, including Necedah National Wildlife Refuge, Department of

Defense, Wisconsin Department of Natural Resources, and County Forest.

The Karner blue butterfly has declined throughout its range in Michigan. It still occurs in six of seven counties from which it was known historically, but the existing populations are greatly reduced and have become highly fragmented within expanses of unsuitable habitat (Wilsmann 1990). The Michigan Natural Features Inventory includes over two dozen historical locations for the Karner blue butterfly. Five of these no longer support populations of Karner blue butterflies, and many of the remainder are ranked as poor quality sites. Information on exact historical locations is lacking, but many general areas reported to have Karner blue butterflies in the 1950's have become unsuitable due to succession or conversion to plantations (L. Wilsmann, Michigan Department of Natural Resources, pers. comm., 1991). In his analysis of recent population studies in the Allegan State Game Area, Michigan's only remaining sizable population, Schweitzer (*in litt.*, 1989) noted that the results indicate a decline to fragmented remnants with dangerously low numbers, which is characteristic of a collapsing Karner blue butterfly population. Other Michigan sites occur on the Manistee National Forest (intermixed with private inholdings), on power company rights-of-way, and on other private lands.

The results of surveys during 1990 in Indiana were summarized by C. Hedge (Indiana Department of Natural Resources, pers. com., 1991). Karner blue butterflies were reconfirmed at one known site, and they were also rediscovered on three of seven historical sites. Searches at 24 sites identified as potentially suitable for the species yielded six new locations for the species. However, all extant sites in Indiana are in two population clusters within three counties. Six sites are located on Indiana Dunes National Lakeshore, and other landowners include a county park, a school district, and The Nature Conservancy. Shull (1977) indicated eight Indiana counties in the historic range of the Karner blue, although some of these records are based on sightings that are not supported with voucher specimens. The species is no longer found at one area where Shull reported observing dozens of individuals in 1980.

Cuthrell (1990) reported the results of 1990 surveys conducted in Minnesota. There are two historical records for Minnesota. During the 1990 surveys of 50 potentially suitable sites, two areas with Karner blue butterflies were located.

Both sites are on a State Wildlife Management Area, in the vicinity of one of the historical locations. Karner blue butterflies were not found at the other historical site.

Karner blues frequently occur with other rare butterfly species such as the persius duskywing (*Erynnis persius*) and the frosted elfin (*Incisalia irus*), which are being listed by states where they occur (D. Schweitzer, pers. comm., 1991). Wild lupine is also the host plant for these species in parts of their range.

The Karner blue butterfly was first recognized by the Federal government in the **Federal Register** Notice of Review published on May 22, 1984 (49 FR 21664). That notice, which covered invertebrate wildlife under consideration for endangered or threatened status, included the Karner blue butterfly as a Category 2 species. Category 2 includes those taxa for which proposing to list as endangered or threatened is possibly appropriate, but for which substantial data on biological vulnerability and threats are not currently available to support proposed rules. In the **Federal Register** Animal Notice of Review published on January 6, 1989 (54 FR 554), the Karner blue butterfly was retained as a Category 2 species. Although the decline of the Karner blue butterfly in the Northeast was documented during the 1980's, it was believed that populations in the Midwest were relative secure, particularly in Wisconsin and Michigan. Surveys conducted during 1989 and 1990 in the Midwest revealed that the butterfly is in decline there also. Based on the recent status reviews, the Service's Northeast and North Central Regions recommended in the fall of 1990 that the Karner blue butterfly be included in the next **Federal Register** Notice of Review as a Category 1 species, indicating that the Service now possesses sufficient information to support the appropriateness of proposing to list this butterfly.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal Lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the Karner blue butterfly (*Lycaeides melissa samuelis*) are as follows:

A. The Present or Threatened Destruction, Modification or Curtailment of its Habitat or Range

Throughout its range, changes in the habitat occupied by the Karner blue butterfly resulting from the declining frequency of wildfires, silviculture, and urbanization are largely the reasons for its decline (D. Schweitzer, *in litt.*, 1991). Modification and destruction of habitat and fragmentation of remaining areas are continuing threats to the survival of this butterfly. In addition to direct destruction of suitable habitat, urbanization has led to fire suppression on interspersed habitat; in the absence of fire, vegetational succession has made this habitat unsuitable. The threats due to fire suppression are discussed in more detail under Factor E.

In New York, the decline of the Karner blue butterfly resulting from loss and alteration of habitat is largely due to industrial, commercial, and residential development, fire suppression, vegetational succession, and habitat fragmentation. The Albany Pine Bush, which once covered as much as 40,000 acres, has been reduced to 2,000 acres. Zaremba (1991) noted that in addition to habitat loss, dissection of metapopulations by development such as buildings and roads is a major threat to the Karner blue butterfly in New York, along with detrimental management of lupine stands and habitat disturbance due to off-road vehicles and horseback riding.

Habitat fragmentation and loss of habitat through development, combined with the extremely small size of the remaining population (discussed under Factor E), are the greatest threats to the Karner blue butterfly's continued existence in New England. The pine barrens in New Hampshire have largely been destroyed as a result of industrial, commercial, and residential development; road and airport construction; and gravel and sand mining. A major retail mall, recently completed on the outer edges of Concord's pine barrens, will encourage additional commercial development and further encroachments into pine barren habitat. A recent proposal to spread and stockpile sewage sludge on airport lands in New Hampshire would, if implemented, alter or eliminate pine barren habitat. Remaining fragments of this natural community are threatened by continued development pressures, vegetational succession in the absence of periodic fires, airport expansion, and degradation due to off-road vehicular use. Spurduto (New Hampshire Natural Heritage Inventory, pers. comm., 1991) estimated that 90 to 95+ percent of the

historic pine barrens in the Merrimack system have disappeared.

Most of the remnant populations of the Karner blue butterfly in Wisconsin are small and widely scattered, occurring in isolated patches of habitat along roadsides, power line clearings, and on abandoned agricultural fields. These areas are threatened primarily by encroachment of adjacent forests, conversion to pine plantations, and incompatible management practices including improper application of burning and mowing (Bleser 1990).

In Michigan, the major cause for the butterfly's decline has been the degradation and loss of habitat as a result of succession and development. The habitat has been affected by fire suppression, agriculture, silviculture, and off-road vehicles. Remaining Karner blue butterfly populations continue to be threatened by the decline and loss of wild lupine populations resulting from these factors (Wilsman 1990).

The two major threats in Indiana identified by C. Hedge (pers. comm., 1991) are destruction of habitat by development, and succession resulting from fire suppression.

Cuthrell (1990) identified fire suppression, development, and other human disturbance as causes for the loss of Karner blue butterfly habitat in Minnesota. The major threat to the two extant sites is succession, but potential logging of the oak savannas also poses a threat (R. Baker, Minnesota Department of Natural Resources, pers. comm., 1991).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

There have been large scientific collections of Karner blues in the past (R. Zaremba, The Nature Conservancy, pers. comm., 1991), although past collecting is not considered to have been a significant factor in the butterfly's decline to its present condition. However, the Karner blue butterfly's rarity and distinctively beautiful coloration may make it a desirable addition to private collections. Because the Karner blue butterfly's numbers are so low throughout its range, additional taking or collecting for any purpose other than part of a carefully planned recovery action may eliminate some populations and hamper recovery efforts.

C. Disease or Predation

Disease and predation have not been documented as factors in the decline of this species.

D. The Inadequacy of Existing Regulatory Mechanisms

The Karner blue butterfly is listed as endangered or threatened by several states:

In New York, the Karner blue butterfly is listed as endangered and the animals and parts thereof, including eggs and larvae, are protected from unauthorized take, import, transport, possession, or sale.

The State of Minnesota lists the Karner blue butterfly as a threatened species. Minnesota law protects state listed animals from take, import, transport, or sale.

In New Hampshire, the Karner blue butterfly is listed as endangered and is protected from unauthorized taking. While New Hampshire law directs other State agencies to avoid funding, carrying out, or authorizing actions that result in the destruction of essential habitat, it has not prevented the loss of habitat through development of private property. Wild lupine is listed by New Hampshire as an endangered plant species. It is protected by the New Hampshire Native Plant Protection Act of 1987, which is implemented by the New Hampshire Natural Heritage Inventory within the Department of Resources and Economic Development. However, this legislation does not prevent alteration of wild lupine habitat on private land, with the landowner's permission.

In Wisconsin, the Karner blue butterfly has been recommended for addition to the State list as threatened, but listing may take one to two years (C. Bleser, Wisconsin Department of Natural Resources, pers. comm., 1991). If listed, in addition to protection from take at occupied sites, Wisconsin law provides for protection and management of habitat on public lands, where a significant portion of Wisconsin Karner blue occurrences are found.

In Michigan, the Karner blue butterfly has been proposed for addition to the State list as a threatened species. Michigan law prohibits taking of listed animals and protects publicly owned land, but would not prevent a landowner for take and/or use of Karner blue.

The Service believes the States do not have enough resources to insure that the many laws and regulations for Karner blue protection and management of the habitat.

In addition, the Karner blue butterfly is not listed as endangered or threatened in all States for the butterfly's decline.

Some populations of Karner blue butterfly exist on Federal, State, or

privately owned parks, wildlife refuges, or preserves and are thereby recognized and protected. However, this protection has not prevented the range-wide declines of the Karner blue and its habitat due to the reasons discussed in section A above, and section E below.

The pine barrens and oak savannas where the Karner blue butterfly occurs are uplands underlain by extremely well-drained sandy soils and are thus afforded no protection by Federal or State wetland regulations. Should the Karner blue butterfly be federally listed, there will be additional protection provided from take or transport of the species, and from habitat alteration carried out, funded, or authorized by Federal agencies. The Endangered Species Act would also provide for needed habitat management through the recovery process.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

The presence of wild lupine is essential to the occurrence and survival of the Karner blue butterfly. Unaltered by humans, a pine barren ecosystem is likely to be a mosaic of interspersed woody vegetation, such as pitch pine (*Pinus rigida*) and scrub oak (*Quercus ilicifolia*) and more open areas characterized by wild lupine, grasses, and other plants such as spreading dogbane (*Apocynum androsaemifolium*) and New Jersey tea (*Ceanothus americana*) which serve as nectar sources for adult butterflies (The Nature Conservancy 1990).

Historically, the pine barren and oak savanna communities were maintained by naturally occurring, periodic fires that released nutrients and created openings favorable for wild lupine and other low growing plants. Residential and commercial development in, and adjacent to these areas has lead to fire suppression. Without fire, vegetational succession to unsuitable habitat occurs on interspersed undeveloped areas. In the absence of fire, many areas once dotted with openings and wild lupine are now dominated by forest with little or no understory. Fire suppression has affected habitat throughout the range of the Karner blue butterfly.

Current management of the Karner blue butterfly is predominantly reactive to fire. The only human influence on lupine is organized control of pine plantations from nearby developed sites (Petersen 1989). Maintenance of the Karner blue butterfly depends on its ability to disperse to new, unoccupied wild lupine sites (Zarembka 1991). Fragmentation of remaining habitat prevents dispersal and results in small isolated populations.

With small, isolated and declining populations, the subspecies is highly vulnerable to extinction. Extreme isolation, whether by geographic distance, ecological factors, or reproductive strategy, will prevent the influx of new genetic material and can result in a highly inbred population with low viability and/or fecundity (Chesser 1989). Natural fluctuations in rainfall, host plant vigor, or predation may weaken a population to such an extent that recovery to a viable level would be impossible. Isolation prevents recolonization by butterflies from other metapopulations, resulting in extinction.

Small remnant populations are highly vulnerable to a variety of factors. Weather events can eliminate such populations, as exemplified by the failure of the Ontario, Canada remnant to survive the impacts of drought in 1980, followed by unusually cold weather in May and June of 1989 (D. Schweitzer, *in litt.*, 1991). Improper management of existing wild lupine habitat including untimely mowing, the use of herbicides along highways and power line rights-of-way, and poorly timed and/or configured burns also threaten remnant populations (D. Schweitzer, *in litt.*, 1991; Bleser 1990; Zarembka 1991). Browsing of wild lupine by deer, rabbits and/or woodchucks also poses a threat (D. Sperduto, pers. comm., 1991; D. Schweitzer and D. Savignano, pers. comm., in Gurnish *et al.* 1988). A relationship between the scarcity of adult nectar sources and Karner blue butterfly abundance has also been observed (Bleser 1990; D. Sperduto, pers. comm., 1991).

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by this subspecies in determining to propose this rule. Based on this evaluation, the preferred action is to list the Karner blue butterfly as endangered. It has been extirpated from Canada and from four states in the U.S., and has undergone significant decline in the six states with remaining populations. Due to the magnitude of the range-wide decline of the Karner blue butterfly, particularly within the past decade, and the continuing threats from destruction, fragmentation, and fragmentation of its habitat, this

subspecies warrants Federal protection. It is not certain to survive without Federal support, including the Karner blue butterfly as an endangered species.

Critical Habitat

Section 4(b)(3) of the Act as amended requires that, to the maximum extent prudent and determinable, the Secretary

propose critical habitat at the time the species is proposed for listing as endangered or threatened. Section 3 of the Act defines critical habitat as, "(i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species." Designation of critical habitat is prudent unless: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species (50 CFR 424.12(a)(1)). Designation of critical habitat is determinable unless: (1) information sufficient to perform the required analyses of the impacts of the designation is lacking, or (2) the biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat (50 CFR 424.12(a)(2)).

The Service finds that designation of critical habitat for the Karner blue butterfly is not presently determinable. Most existing populations of this butterfly are located on highly fragmented habitat of declining suitability. The size, spatial configuration, and juxtaposition of habitat areas required to provide for the long-term survival of existing populations have not been identified. Range-wide conservation of the Karner blue butterfly may also require protection and/or restoration of habitat in areas where the species is now extirpated. In addition, information needed to analyze the impacts of critical habitat designation is unavailable at this time.

The Service will be initiating a concerted effort to obtain the information needed to determine critical habitat for the Karner blue butterfly. When the Service finds that critical habitat is not determinable at the time of listing, regulations (50 CFR 424.17(b)(2)) provide that the designation of critical habitat be completed within two years of the date of the proposed rule to list the species. A proposed rule for critical habitat designation must be published in the **Federal Register**, and the notification process and public comment provisions parallel those for a

species listing. In addition, the Service will evaluate the economic and other relevant impacts of the critical habitat designation, as required under section 4(b)(2) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. Federal involvement under section 7 is expected for management and other land use activities on Federal lands with Karner blue butterfly populations. Present locations include U.S. Forest Service lands in Michigan, National Park Service lands in Indiana, and U.S. Fish and Wildlife Service National Wildlife Refuge lands and Department of Defense lands in Wisconsin. Activities which are funded, regulated or carried out by the Federal Aviation Administration involving the airport lands in New York and New Hampshire where Karner blue butterflies occur would require section 7 consultation. A proposed airport

expansion in New York, and a proposal to stockpile sewage sludge at an airport in New Hampshire could affect the Karner blue butterfly and may require Federal Aviation Administration approval. Some development projects involving Karner blue butterfly sites could require authorization from the U.S. Army Corps of Engineers (Corps) for certain project related activities in regulated waters or wetlands of the United States. Corps' authorization of such projects would require section 7 consultation; however, upland development by itself is not regulated by the Corps. The Service is not aware of any such development proposals at this time.

Listing the Karner blue butterfly would encourage additional research and provide for the development of needed habitat protection and management strategies through the recovery process. Additional information is needed on specific habitat characteristics such as plant community species and structure, soil dryness, shading, and other factors that may affect the suitability of the habitat for Karner blue butterflies. Likely recovery activities would also include continued monitoring, evaluation of habitat management techniques, development of site-specific protection and management plans, and investigations into re-establishing populations.

The Act and implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities.

Public Comments Solicited

The Service intends that any final action resulting from this proposal will

be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the Karner blue butterfly;

(2) The location of any additional populations of the Karner blue butterfly and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of the Karner blue butterfly;

(4) Current or planned activities in the subject area and their possible impacts on the Karner blue butterfly.

Final promulgation of the regulation on the Karner blue butterfly will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal. Such requests must be made in writing and addressed to Field Supervisor, New York Field Office, U.S. Fish and Wildlife Service (see **ADDRESSES** section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as

amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

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Author

The primary author of this proposed rule is Mark W. Clough (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulation Promulgation

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order, to the List of Endangered and Threatened Wildlife, under "INSECTS".

§ 17.11(h) Endangered and threatened wildlife.

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(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Insects							
Butterfly, Karner blue	<i>Lycaeides melissa samuelis</i>	U.S.A. (IL, IN, MA, MI, MN, NH, NY, OH, PA, WI), Canada (Ont.)	NA	E		NA	NA

Dated: January 8, 1992.

Richard N. Smith,

Acting Director, Fish and Wildlife Service.

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